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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,434	12/30/2002	Frank Kowalewski	10191/2268	6923
26646	7590	10/10/2006	EXAMINER	
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			SHUE, JUH YIH	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/089,434		KOWALEWSKI, FRANK	
	<b>Examiner</b>		<b>Art Unit</b>	
	Juh-Yih Shue		2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/29/02, 04/11/03</u>  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Objection*

1. Claim 7 is objected to because of the following informalities:
2. In the preamble of claim 7 states "A data transmission method ..." is not matched the description of the claim body. All the description in the body indicating the claim is a method claim of detection or receiving CDMA signal not "transmission".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 7 and 12 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "using generator", does not reasonably provide enablement for "generator a, b". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

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5. In claim 7, applicant recites the subject matter "at least one generator", and in page 2, line 6, and claim 12, applicant recites the subject matter " using the one or more generators" are not enabling for a person of the ordinary skill in the art at the time the invention was made. In the specification line 7, applicant mentions, "...using generators a, b ...", but fails to describe what kind of generator or what is the relationship between those generator and despreaders E1...En and how those generators produce suitable code sequence mask for de-spreaders E1...En.

Claims depending on all the rejected claims above are also rejected for the same.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 7 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claims 7 and 12 recites the limitation " a sufficient extent" which the term "sufficient " render to unclear definition.

Claims depending on all the rejected claims above are also rejected for the same.

*Claim Rejections - 35 USC § 102*

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 7 and 12 are rejected under 35 U.S.C. 102(b) as being unpatentable by Ozluturk (U.S. Patent No. 5,748,687), hereinafter "Ozluturk".

11. With respect to claim 7, Ozluturk discloses a method for receiving a CDMA codes data method, comprising:

transmitting a CDMA-coded data signal between a transmitter and a receiver in the form of a data stream of spread data bursts using hierarchical CDMA codes [Col. 3, Lines 66-67 and Col. 4, Lines 1-6, Since receiver received spreading code phase, it indicated the coding structure is hierarchical] ;

detecting data corresponding to a mother code of at least one of the codes [Fig. 1, Col. 4, Lines 13-19, using a "guess" code (mother code) to de-spread the receiving signal ];

de-spreading the detected data using at least one generator [Fig. 1, Col. 4, Lines 13-19, if the signal is not synchronization (despread), the receiver locally generates (spreading sequence generator 205) a new code value and try to despread repeat];

aborting the detecting [searching] if the data has been despread to a sufficient extent [Fig. 1, Col. 4, Lines 39-40, when reached the synchronization point (completely despread), the search (dispreading process) is stop]; and

repeating the despreading step using the data last despread if the data has not been despread to the sufficient extent to obtain receiving data [Fig. 1, Col. 4, Lines 13-19].

12. With respect to claim 12, Ozluturk discloses a device for receiving a CDMA-coded data signal transmitted in the form of a data stream of spread data bursts using hierarchical CDMA codes [Col. 3, Lines 66-67 and Col. 4, Lines 1-6, Since receiver received spreading code phase, it indicated the coding structure is hierarchical], comprising:

a first stage configured to detect spread data according to a mother code of at least one of the codes [Fig. 1, Col. 4, Lines 13-19, using a "guess" code (mother code) to de-spread the receiving signal];

a second stage downstream from the first stage configured to despread the detected data using the one or more generators, the second downstream stage being configured to abort detection if the data has been despread to a sufficient extent [Fig. 1, Col. 4, Lines 39-40, when reached the synchronization point (completely despread), the search (despreading process) is stop];

and to repeat the despreading using the data last despread until the data has been despread to the sufficient extent to obtain receiving data [Fig. 1, Col. 4, Lines 13-19].

### *Claim Rejections - 35 USC § 103*

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the

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prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozluturk (U.S. Patent No. 5,748,687), hereinafter "Ozluturk", in view of Allpress et al. (U.S. Patent 5,920,552), hereinafter "Allpress".

As to claim 8, Ozluturk teaches all the limitations of claim 7 (see above), which claim 8 depends. However, Ozluturk does not disclose using rake receiver to detect receiving data.

Allpress discloses detecting the data using a rake receiver, and wherein the despreading step includes despreading the detected data using a despreading device connected downstream from the rake receiver [See Fig. 2, Col. 2, Lines 52-60, rake receiver 125 output to Walsh despreaders 128].

Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to modify the teaching of Ozluturk to have a rake receiver to perform demodulation and interleaving function in order to detect RF CDMA signal.

The motivation for doing so is to use the well-known rake receiver to perform a better demodulation scheme to counter the effects of multi-path fading and interference.

15. With respect to claim 9, Ozluturk modified by Allpress, discloses performing a preliminary despreading operation in the rake receiver. The rake receiver needs to perform demodulation and interleaving. This means there are some of "XOR" logic operations of input and PN codes within the rake receiver. Those "XOR" operations as known as "autocorrelation", are actually part of de-spreading processing.

16. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozluturk (U.S. Patent No. 5,748,687), hereinafter "Ozluturk", in view of Bottomley et al. (U.S. Patent 5,550,809), hereinafter "Bottomley".

Ozluturk teaches all the limitations of claim 7 (see above), which claim 10 depends.

17. As to claims 10 and 11, Ozluturk teaches all the limitations of claim 7 (see above), which claim 10 depends, But Ozluturk does not disclose using joint detection receiver configured to eliminate mutual interference of transmitted data, and wherein the despreading step includes despreading the detected data using a despreading device connected downstream from the joint detection receiver and there is a preliminary despreading operation in the joint detection receiver.

Bottomley discloses a joint detection receiver (joint despreader) is configured to eliminate mutual interference of transmitted data [Col. 15, Lines 36-46].



It would have been obvious to a person of the ordinary skill in the art at the time the invention was made to modified the teaching of Ozluturk by insert a joint detection receiver that Bottomley taught into the front end of the CDAM receiver in order to detect receiving CDMA signal and eliminate inter symbols interference first then fed the output of the receiver to the despreaders for better CDMA code acquisition processing.

The motivation for doing so is to use the joint detection receiver to eliminate mutual interference of received data [Col. 15, Lines 4] to obtain the invention as specified in claim 10.

18. With respect to claim 11, Ozluturk modified by Bottomley, discloses performing a preliminary despreading operation in the joint detection receiver [Bottomley, Col. 15 , lines 41, joint despreaders ].

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juh-Yih Shue whose telephone number is 571 270 1141. The examiner can normally be reached on Mon.-Fri./07:30-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571 272 3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**RICKY NGO**  
**SUPERVISORY PATENT EXAMINER**

JYS/  
9/27/2006

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Supervisory  
Patent Examiner

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